

What is claimed is:

1. A lithium secondary battery comprising:
an electrode body obtained by winding or laminating a
positive electrode and a negative electrode via a separator,
and

5 a non-aqueous electrolytic solution containing a
lithium compound as the electrolyte,
wherein the non-aqueous electrolytic solution contains water
(H₂O) and hydrofluoric acid (HF) in a total concentration of
10 10,000 ppm or less.

2. A lithium secondary battery according to Claim 1,
wherein the lithium compound is lithium hexafluorophosphate.

3. A lithium secondary battery according to Claim 1,
wherein lithium manganese oxide of cubic system spinel
15 structure containing lithium and manganese as the main
components is used as the positive electrode active
substance.

4. A lithium secondary battery according to Claim 2,
wherein lithium manganese oxide of cubic system spinel
20 structure containing lithium and manganese as the main
components is used as the positive electrode active
substance.

5. A lithium secondary battery according to Claim 1,
wherein a highly graphitized carbon fiber is used as the
25 negative electrode active substance.

6. A lithium secondary battery according to Claim 2,
wherein a highly graphitized carbon fiber is used as the
negative electrode active substance.

7. A lithium secondary battery according to Claim 3,
30 wherein a highly graphitized carbon fiber is used as the

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negative electrode active substance.

8. A lithium secondary battery according to Claim 4, wherein a highly graphitized carbon fiber is used as the negative electrode active substance.

5 9. A lithium secondary battery according to Claim 1, which has a battery capacity of 2 Ah or more.

10. A lithium secondary battery according to Claim 1, which is used in an electric automobile or a hybrid electric automobile.

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